

**2011 Tech Crawl**  
**The Interactive Periodic Table**  
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**Background**

Descriptive chemistry is the study of the properties, uses, and hazards of the 116 chemical elements. It is an area of chemistry we almost never have time to cover during class time. In past years, we would have our Honors Chemistry students design posters on the individual elements and present their work to the class. While the posters were visually appealing and looked good hanging in the classroom, during the 2009 – 2010 school year, we decided to have the girls film and edit their own videos on their chosen element.

**Objectives of Project:**

The goals of this project were: (1) to incorporate video technology into the study of the uses, properties, and hazards of the most commonly-used elements; and, (2) to have the Honors Chemistry students create an interactive, web-based periodic table that can serve as a source of information on those chemical elements.

**Summary of the Stages of the Project**

**Stage 1-** Research and Outline

- Each student was randomly assigned an element from a list generated by Steve and Darin.
- Upper School librarians came to class to discuss resources available to the girls for research. Proper method for citations was also reinforced.
- Girls had two weeks to do research on their element and write a one-page outline of the facts they wanted to include in their videos.

**Stage 2-** Preparing a Story Board

- After outlines were graded and approved by the teacher, each student was assigned to prepare a Story Board – a frame-by-frame description of how they will shoot their video.
- They were asked to include setting, camera angle, and dialogue for each scene. The girls had two weeks for this part of the project.

### Stage 3- Shooting the Video

- After Story Boards were graded and approved by the teacher, filming of the video could begin.
- Students were provided with a list of other students in the class who have the same free periods so that each girl could find at least one classmate to help with filming.
- Filming was done on campus using Flip video cameras so that all girls would have access to the same technology.
- Girls were given two weeks to film their videos.
- After filming, each student saved her video clips to a special folder that was created in "Student Share" on Generosity.

### Stage 4- Editing the Video

- Each class spent at least one class period in the Media Arts Room learning video editing software from Jen (2010- Adobe Premier; 2011- IMovie).
- Students were given detailed instructions on how to edit their videos.
- The timeline for this stage depends on student access to the Media Arts Room and the overall progress the classes make in general.
- Students were encouraged to incorporate their video clips, sound bites, and other images from the internet into their final product.

### **What are the desired outcomes?**

After successful completion of this project, students should:

- 1) be proficient using video editing software to incorporate video clips, static images, sound bytes, and other animations into one cohesive video.
- 2) be our local expert on the discovery, properties, uses, and hazards of their assigned element.
- 3) be able to access information about other elements by using the interactive periodic table created by the class as a whole.